

CLAIMS

1. A method for re-establishing context of data packet flow between terminals through at least a network comprising a number of routers for routing data packet flows between the routers along data packet flow paths connecting said terminals, of which terminals at least one is mobile and may change access between different access points of said at least a network, wherein an access point comprises an access router and a middlebox, which is controlled and supported by an associated Midcom Agent, **characterized** by the steps of:
 - 10 - receiving from a mobile terminal, one message indicating a change from one current access point, to which the mobile terminal is connected, to a selected access point, to which said terminal will perform an handover(step 102);
 - sending a request comprising a copy of stored context in the Midcom Agent for said data packet flow to the middlebox of said current access point(step 104);
 - analysing in the middlebox of said current access point whether the sent context is equal to the context stored in said middlebox, or not (step 106);
 - 15 - updating the stored context in the Midcom Agent to a valid context in accordance to received context in a response (Context Transfer Data response) message from said middlebox of said current access point(step 108);
 - distributing said valid context to at least the middlebox of said selected access point(step 110).
2. A method according to claim 1, characterized in that the message, which is indicating a change from one current access point to a selected access point, is a CTSR (Context Transfer Start Request) message involving the IP address of the selected access point.
- 30 3. A method according to claim 1, characterized in that the response (Context Transfer Data response) message will only contain a confirmation if the sent context is equal to the context stored in said middlebox.

4. A method according to claim 1, characterized in that context is established during the an initiation session in middleboxes along the end-to-end flow path between terminals participating in the session(step 100).

5 5. A method according to claim 1, characterized in that said valid context is distributed to all middleboxes associated with the Midcom Agent (MA)(step 114).

6. A method according to claim 1, characterized in that said valid context is distributed to other Midcom Agents (MA)(step 118).

10 7. A Midcom Agent or re-establishing context of data packet flow between terminals through at least a network comprising a number of routers for routing data packet flows between the routers along data packet flow paths connecting said terminals, of which terminals at least one is mobile and may change access between different access points of said at least a network, wherein an access point comprises an access router and a middlebox, which is controlled and supported by an associated Midcom Agent, **characterized** 15 in that it comprises:

20 - Means for receiving from one of the User Terminals, one CTSR message indicating a coming path change* from one current access point to a selected access point;

- Means for sending a CTDreq comprising a copy of stored context for said IP information flow path to the middlebox of said current access point;

- Means for updating according to new received context in a CTDresp message from the middlebox of said current access point said stored context to a valid context;

- Means for distributing said valid context to at least the middlebox of said selected access point.

25 30 8. A Midcom Agent according to claim 7, characterized in that the message, which is indicating a change from one current access point to a selected access point, is a CTSR (Context Transfer Start Request) message involving the IP address of the selected access point.

9. A Midcom Agent according to claim 7, characterized in that the response (Context Transfer Data response) message will only contain a confirmation if the sent context is equal to the context stored in said middlebox.

5 10. A Midcom Agent according to claim 7, characterized in that the agent comprises means for establishing context during the an initiation session in middleboxes along the end-to-end flow path between terminals participating in the session.

10 11. A Midcom Agent according to claim 7, characterized in that it comprises means for distributing context to all middleboxes associated with the Midcom Agent (MA).

12. A Midcom Agent according to claim 7, characterized in that it comprises means for distributing context to other Midcom Agents (MA).

15 20 13. A system for re-establishing context of data packet flow between terminals through at least a network comprising a number of routers for routing data packet flows between the routers along data packet flow paths connecting said terminals, of which terminals at least one is mobile and may change access between different access points of said at least a network, wherein an access point comprises an access router and a middlebox, which is controlled and supported by an associated Midcom Agent, **characterized in** that it comprises:

25 30

- Means for receiving from one of the User Terminals, one CTSR message indicating a coming path change* from one current access point to a selected access point;
- Means for sending a CTDreq comprising a copy of stored context for said IP information flow path to the middlebox of said current access point;
- Means for analysing in the middlebox of said current access point whether the sent context is equal to the context stored in said middlebox, or not
- Means for updating according to new received context in a CTDresp message from the middlebox of said current access point said stored context to a valid context;

- Means for distributing said valid context to at least the middlebox of said selected access point.

14. A system according to claim 13, characterized in that the message, which is indicating a change from one current access point to a selected access point, is a CTSR (Context Transfer Start Request) message involving the IP address of the selected access point.

15. A system according to claim 13, characterized in that the response (Context Transfer Data response) message will only contain a confirmation if the sent context is equal to the context stored in said middlebox.

16. A system according to claim 13, characterized in that the agent comprises means for establishing context during the an initiation session in middleboxes along the end-to-end flow path between terminals participating in the session.

17. A system according to claim 13, characterized in that it comprises means for distributing context to all middleboxes associated with the Midcom Agent (MA)

18. A system according to claim 13, characterized in that it comprises means for distributing context to other Midcom Agents (MA).

19. A computer program product comprising computer executable software stored on a computer readable medium, the software being adapted to run at a computer or other processing means characterized in that when said computer executable software is loaded and read by said computer or other processing means, said computer or other processing means is able to perform the steps of the method according to any of claims 1-6.

20. A computer program product stored on a computer usable medium, comprising readable program for causing a processing means within a network node to control the execution of the steps of any of claims 1-6.